

## REMARKS

### Claims in the Case

Claim 5 was previously cancelled. Claims 1, 4, 7, 13, 19, 20 and 21 were amended. Claims 1-4 and 6-27 are currently pending in the case.

### Rejected Claims 1-4 and 6-18

The Office Action rejected the pending claims 1-4 and 6-18 over U.S. 6,226,296 (Lindsey), alone and in combination with U.S. 5,757,801 (Arimilli), and over U.S. 4,628,501 (Loscoe). Applicant traverses these rejections.

At least the following combination of claimed features are not taught or suggested by the cited references, namely:

- a plurality of connection devices (CDs) each configured to connect to a plurality of separate signal sources and to **provide communications** among them;
- an interconnect hub to which the CDs are connected to form a **physical star configuration** and a **logical ring network**, such that each CD communicates to other CDs through the interconnect hub; and
- synchronous time division multiple access (TDMA) communications for the logical ring network communications.

Thus, the interconnect hub forms the center of a **physical star network** and provides a **logical ring network** for the CDs. Each CD then forms a communication hub for a plurality of signal sources. As stated in the Application, the functions of the described systems “are achieved by combining a **star physical configuration** with a synchronous TDMA data stream in a **logical ring** architecture.” [Specification, page 6, lines 18-22.]

Independent claims 1, 4, 7 and 13 have been amended to clarify the nature of the invention.

With respect to Lindsey, the Office Action argues that node 1100 “can be considered as an interconnect hub that is placed at the center of ring network 1400.” However, looking at FIG. 10 of Lindsey, it is clear that node 1100 does not form a ring network through which nodes 1200

and 1300 connect to each other. Rather, nodes 1200 and 1300 have connections 1250 and 1500 that connect directly between them. As such, FIG. 10 is depicting a physical ring network and not a physical star configuration. In other words, Lindsey does not teach or suggest an interconnect hub forming a **physical star network** and providing a **logical ring network**, as required by the claims.

With respect to Loscoe, the Office Action argues that the user stations (U1, U2, U3, U4) are connection devices (CDs) that are “configured to connect to a plurality of separate audio signal sources” and are “configured to provide communications among these separate audio sources.” As described in Loscoe, a user station could “comprise a plurality of user stations” that would “share the optical fibers T<sub>1</sub>, R<sub>1</sub>, etc. for transmitting and reception to and from the star coupler.” [Loscoe, col. 3, lns. 30-35.] The transmissions from all grouped user stations are combined and transmitted to the star coupler, which then receives transmissions from all grouped users, combines them, and sends them back to the user stations. [Loscoe, col. 3, lns. 36-46.] The user stations in FIG. 2, therefore, are not configured to provide communications among a plurality of additional user stations. Rather, all user stations communication through the star coupler, which amplifies the user station signals and sends them back out to all other user stations. Thus, Loscoe does not teach or suggest a plurality of connection devices configured to **provide communications** among a plurality of separate signal sources or an interconnect hub forming a **physical star network** and providing a **logical ring network**, as required by the claims.

Applicant respectfully asserts that the claims 1-4 and 6-18 are not taught or suggested by Lindsey or Loscoe, whether considered alone or in combination with other references. An indication of allowance for these claims is respectfully requested.

#### **Rejected Claims 19-27**

The Office Action rejected the pending claims 19-27 over U.S. 5,206,857 (Farleigh) and U.S. 5,550,820 (Baran). Applicant traverses these rejections.

As stated above, at least the following combination of claimed features are not taught or suggested by the cited references, namely:

- a plurality of connection devices (CDs) each configured to connect to a plurality of separate signal sources and to **provide communications** among them;
- an interconnect hub to which the CDs are connected to form a **physical star configuration** and a **logical ring network**, such that each CD communicates to other CDs through the interconnect hub; and
- synchronous time division multiple access (TDMA) communications for the logical ring network communications.

Thus, the interconnect hub forms the center of a **physical star network** and provides a **logical ring network** for the CDs. Each CD then forms a communication hub for a plurality of signal sources. As stated in the Application, the functions of the described systems “are achieved by combining a **star physical configuration** with a synchronous TDMA data stream in a **logical ring architecture**.” [Specification, page 6, lines 18-22.]

Independent claim 19 has been amended to clarify the nature of the invention.

With respect to Farleigh, the Office Action argues that the “first central hub” is met by device 200 and the “second central hub” is met by device 300. However, looking at FIG. 1 of Farleigh, it is clear that network interface 200 in device 100 and the network interface 300 in device 130 do not each form a ring network through which the other nodes connect to each other. Rather, each of the nodes 100, 110, 120, 130 and 140 have direct connections between each adjacent node. As such, FIG. 1 is depicting a physical ring network and not a physical star configuration. In other words, Farleigh does not teach or suggest an interconnect hub forming a **physical star network** and providing a **logical ring network**, as required by the claims.

Baran is relied upon in the Office Action as showing digital communications. Baran also does not teach or suggest an interconnect hub forming a physical star network and a logical ring network, as required by the claims.

Applicant respectfully asserts that the claims 19-27 are not taught or suggested by Farleigh or Baran, whether considered alone or in combination. An indication of allowance for these claims is respectfully requested.

#### Conclusion

In view of the foregoing, it is respectfully submitted that the pending claims are in condition for allowance. Accordingly, favorable reconsideration and Notice of Allowance are respectfully requested.

The Examiner is invited to contact the undersigned at the phone number indicated below with any questions or comments, or to otherwise facilitate expeditious and compact prosecution of the application.

Respectfully submitted,

A handwritten signature in black ink, appearing to read "Brian W. Peterman", written over a horizontal line.

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